Regional Differences in the Prevalence of Blindness

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Both for appraising State programs of aid to the blind and for planning and evaluating the results of programs for preventing blindness, information is needed concerning the prevalence of blindness in different parts of the Nation. Although satisfactory State estimates cannot be made now because of lack of adequate data, sufficient knowledge of differences in prevalence of blindness exists to permit useful regional comparisons.

THREE factors are considered of special importance as affecting the prevalence of blindness in a given State or region of this country. They are the general health conditions of the area, the age distribution of the population, and the population's racial composition. Doubtless the racial factor does not reflect a true biological influence but rather the fact that, for social and economic reasons, poor health conditions usually take far greater toll of nonwhite than of white persons in all regions.

In certain parts of the Northwest all three of these factors favor relatively few cases of blindness; health conditions there are good, practically all the population is white, and the proportion of aged persons is generally low. In the Southeast, at the other extreme, health conditions are less favorable generally than in other regions, and the nonwhite population is larger than elsewhere; a high rate of blindness is found, despite the fact that persons aged 65 and over form a smaller part of the population in that region than in the Nation as a whole. In the Northeast, with the population mainly white, good health conditions have made blindness far less prevalent than in the Southeast, but the very large proportion of aged persons raises the blindness rate above that found in the Northwest.

The high prevalence of blindness in the southeastern region stands out in greater contrast in the national picture than do the low rates of the Northwest. This is because the national average and the rates for the middle group of States are much closer to the rate for the lowest State than to that for the highest. Consequently, the difference between middle- and high-rate areas in prevalence of blindness is greater than that between the middle- and low-rate areas. Relative to population, there are roughly twice as many blind people in the Southeast as in the low-rate area of the Northwest, whereas the middle-rate area has only about 25 percent more blindness than the low-rate area. Similarly, an area in the North Central part of the United States where the rate is below the average has about 10 percent more blindness than the low-rate area of the Northwest, while the above-average area, which adjoins the Southeast, has 50 percent more blindness than the Northwest.

The accompanying map pictures the geographic distribution of blind persons in the United States by showing the broadly designated areas mentioned above in terms of their relative prevalence of blindness. In a few instances a State has been included in the area with its surrounding neighbors even though its computed rate was within the range of another area. This procedure was followed because the purpose of the map is to bring out the regional pattern of blindness and also because the State rates are at best only approximations. The relative prevalence of blindness designated for an area does not necessarily apply, therefore, to every State in the area.

Various estimates of the prevalence of blindness can be developed, of course, depending on how blindness is defined. The rates from which the map was constructed are based on the concept of economic blindness, which includes not only totally blind persons but also persons with defective vision whose sight is insufficient, even with the aid of glasses, to permit them to read ordinary type or to carry on ordinary occupations for which sight is necessary; persons blind in only one eye are not included. This concept of blindness corresponds in substance with the definitions adopted by most of the States in establishing qualifications of eligibility for public assistance for the blind.

The outlines of the five areas shown on the map are presumably not dependent on the definition of blindness used. Either a more restricted or a broader definition, provided it is applied uniformly over the country, would be expected to locate low-rate, middle-rate, and high-rate areas in approximately the same parts of the Nation. Totally blind persons, for example, are undoubtedly more numerous—relative to population—in the Southeast area than anywhere else in the country.

Estimates of the number of blind persons in the individual States have been published for 1940.[1] At that time the total blind population in the United States was placed around 230,000, or about 1.75 blind persons per 1,000 population. Whether the over-all blindness rate rose, fell, or remained the same from 1940 to 1948 has not been established. The likelihood seems to be that it did not decrease but increased somewhat.

On one hand, medical advances in

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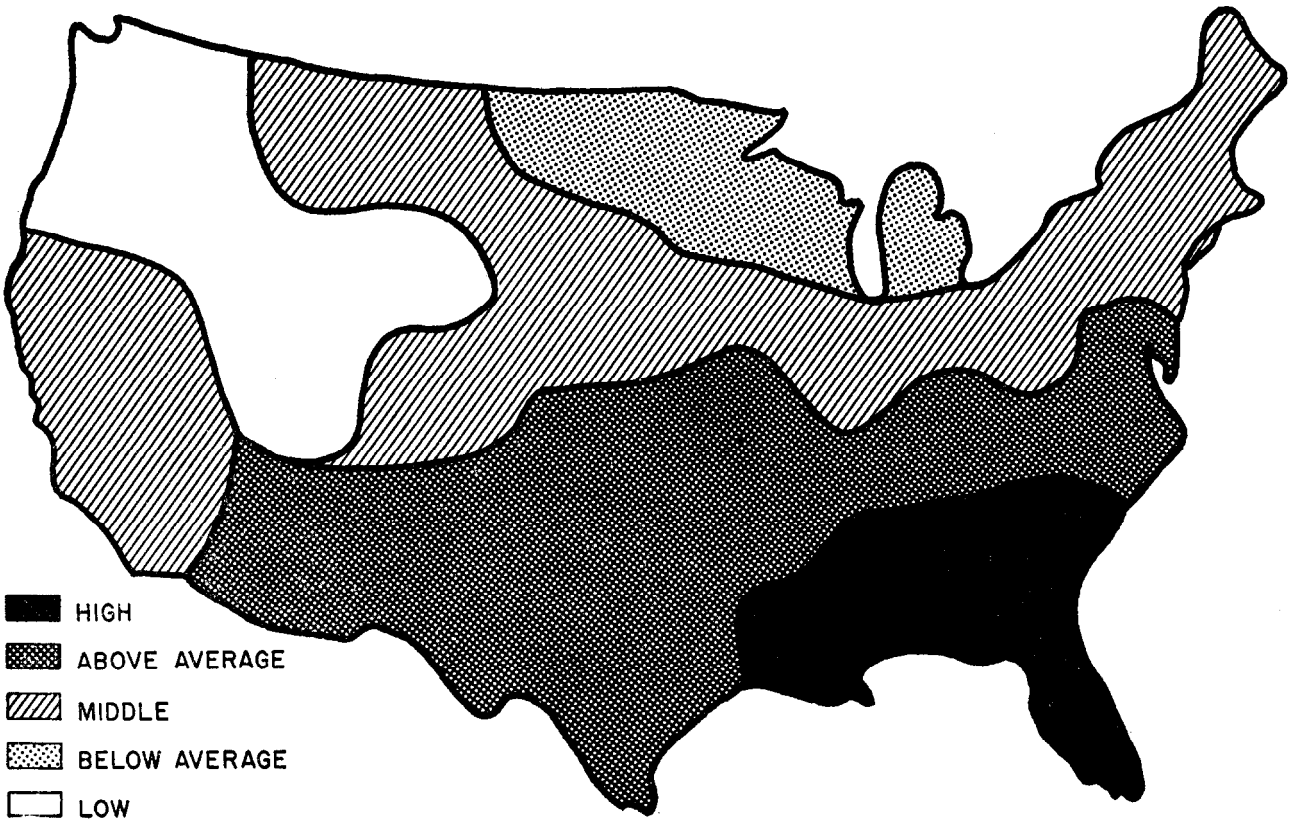
[1] See the *Bulletin*, March 1945, pp. 17–18.

Prevalence of blindness in the United States, 1948



the prevention and treatment of blindness have tended to reduce the rates of blindness at specific ages. The occurrence of new cases of blindness, it should be observed, is decreased not only by the medical advances made between 1940 and 1948 but also by the cumulative effect of the application of medical techniques developed before 1940.

On the other hand, the effect of the progressive lengthening of the average life span, and the consequent aging of the total population, even in these 8 years, has been strongly in the direction of a higher prevalence of blindness. Since most of the blindness that occurs today is of types that appear most commonly among elderly people, the substantial increase in the proportion of the population aged 65 and over has a pronounced tendency to increase the total amount of blindness. The much smaller influence of the war has also been in this direction. The number of persons in the United States armed forces who were blinded during World War II is believed to be fairly small—about 1,500 persons. In addition to the direct war risks, there were indirect risks arising from curtailment of medical services to the civilian population and the greater exposure to occupational hazards because of peak employment in industry during the war.

At the rate estimated for 1940, approximately 255,000 persons in the United States would be blind in 1948. This number is probably too conservative; the true figure may reach 270,000 or even more.

The State estimates of numbers of blind persons are necessarily less reliable for 1948 than for 1940, since they are dependent on estimates of changes in the age and racial characteristics of State populations during the intervening years. In the absence of Census information on the race and age composition of State populations in 1948, these figures were estimated by the Social Security Administration on the basis of mortality data for each State. Because of the decreased reliability, individual State estimates on the numbers of blind persons in 1948 are not now published. More reliable estimates can be prepared when 1950 Census data become available. The approximate quality of the present State estimates, however, does not invalidate their usefulness in pointing to significant differences in the prevalence of blindness in the large regions here discussed.